



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,858	12/22/2001	Bernhard Raaf	112740-344	6325
29177	7590	04/20/2007	EXAMINER	
BELL, BOYD & LLOYD, LLP P.O. BOX 1135 CHICAGO, IL 60690			SAMS, MATTHEW C	
			ART UNIT	PAPER NUMBER
			2617	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	04/20/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/009,858 Examiner Matthew C. Sams	RAAF, BERNHARD Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 January 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 25-32,34-38,40-43 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 25-32,34-38,40-43 and 45-48 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Response to Amendment***

1. This office action has been changed in response to the amendment filed on 1/19/2007.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 25-32, 34-43 and 45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uesugi et al. (EP 0 893,889 A2 hereinafter, Uesugi) in view of Hogan (US 2001/0018741).

Regarding claim 25, Uesugi teaches a method for controlling the transmission power in a radio system (Abstract) comprising:

evaluating a signal received by a receiver via a transmission channel of the radio system from a transmitter; (Col. 12 lines 21-26)

producing power control information as a function of the signal; (Col. 12 line 57 through Col. 13 line 2)

embedding the power control information in a timeslot structure together with further data to be transmitted in the same timeslot to said transmitter; (Col. 12 line 41 through Col. 13 line 2, Fig. 16A & Fig. 16B)

coding, in the receiver, the power control information in one time slot in a manner where the power control information is coded, with the addition of redundancy, together with further data to be transmitted in the same time slot to form a common data word; and (Col. 19 lines 48-51 and Fig. 16B)

transmitting the power control information in one timeslot to the transmitter, together with the further data to be transmitted in the same time slot; (Fig. 16B and Col. 19 lines 48-51) and

setting, in the transmitter, the transmission power as a function of the transmitted coded power control information. (Col. 12 line 41 through Col. 13 line 2)

Uesugi differs from the claimed invention by not explicitly reciting with at least one bit value in the data word depending on the power control information and on the further data.

In an analogous art, Hogan teaches a method and apparatus for performing encryption and error coding correction that includes the usage of an exclusive-OR logic operation (Page 1 [0012-0013] and Page 2 [0027]), wherein once the addition of error

Art Unit: 2617

correction bits are added to a code word containing power control information and further data, at least one bit value (error correction bit) in the data word is depending on the power control information and on the further data. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the method of power control of Uesugi after modifying it to incorporate the error coding correction of Hogan. One of ordinary skill in the art would have been motivated to do this since it enables a simple error correction that reduces the need for retransmission of lost data. (Page 1 [0003 & 0006])

Regarding claim 26, Uesugi in view of Hogan teaches the further data is data for format identification information. (Uesugi Fig. 5 pilot symbol "P")

Regarding claim 27, Uesugi in view of Hogan teaches the further data is user data. (Uesugi Col. 8 line 34-38)

Regarding claim 28, Uesugi in view of Hogan teaches the power control information is transmitted in binary form. (Uesugi Col. 1 line 9)

Regarding claim 29, Uesugi in view of Hogan teaches the bits in the power control word comprises a plurality of bits corresponding to a sum of the bits in the power control information and the bits in the further data: (Uesugi Fig. 16B and Col. 19 lines 48-51)

Regarding claim 30, Uesugi in view of Hogan teaches the coded data word comprises a plurality of bits corresponding to a sum of the bits in the power control information and the bits in the further data. (Uesugi Fig. 11 and Col. 16 lines 37-40)

Art Unit: 2617

Regarding claim 31, Uesugi in view of Hogan teaches that during the coding process, at least one bit in the coded data word is assigned a value of the power control information to be transmitted in the corresponding time slot. (Uesugi Fig. 5A [TPC] and Col. 19 lines 48-51)

Regarding claim 32, Uesugi in view of Hogan teaches that during the coding process, at least one bit in the coded data word is assigned a value of the power control information to be transmitted in the corresponding time slot from the further data. (Uesugi Col. 19 lines 48-51)

Regarding claim 34, Uesugi in view of Hogan teaches during the coding process, at least one bit in the coded data word is assigned a value which corresponds to a logic operation between the power control information to be transmitted in the corresponding time slot and the information to be transmitted in the same time slot from the further data, (Uesugi Fig. 16A, Fig. 16B and Col. 19 lines 48-51) and a logic exclusive-OR operation as the logic operation used in the coding process for error recovery protection. (Hogan Page 1 [0012-0013] and Page 2 [0027])

Regarding claim 35, Uesugi in view of Hogan teaches recovering the power control information in the transmitter via appropriated decoding, with an estimate value being determined for the power control information during the decoding process based on the value obtained by the logic operation from the corresponding bit in the coded data word. (Uesugi Col. 12 line 9 through Col. 13 line 17 and Hogan Page 1 [0012-0013] and Page 2 [0027])

Regarding claim 36, Uesugi in view of Hogan teaches the receiver which produces the coded power control information is a base station in a mobile radio system and the transmitter which received the power control information and sets its transmission level appropriately is a mobile station in the mobile radio system, such that the coded power control information is transmitted via a downlink connection between the receiver and the transmitter. (Uesugi Fig. 4, Fig. 7 and Col. 10 line 13 through Col. 11 line 47)

Regarding claim 37, Uesugi teaches a radio system comprising:

a transmitter; (Fig. 4 [1105]) and

a receiver for receiving a signal from the transmitter (Fig. 4 [Base Station Side]), which is transmitted via a transmission channel of the mobile radio system (Col. 12 lines 21-26), wherein the receiver:

evaluates the received signal; (Col. 12 lines 41-47 and Col. 12 line 57 through Col. 13 line 2)

produce power control information as a function of the signal; (Col. 12 lines 21-26)

embeds the power control information in a time slot structure together with further data to be transmitted in the same timeslot to said transmitter; (Col. 12 line 41 through Col. 13 line 2, Fig. 16A & Fig. 16B)

codes the power control information in one time slot in a manner where the power control information is coded, with the addition of redundancy, together with

further data to be transmitted in the same time slot to form a common data word; and  
(Col. 19 lines 48-51 and Fig. 16B)

transmits the coded power control information in one timeslot to the transmitter, together with the further data to be transmitted in the same time slot (Fig. 16B and Col. 19 lines 48-51) and wherein the transmitter sets the transmission power as a function of the transmitted coded power control information. (Col. 12 line 41 through Col. 13 line 2)

Uesugi differs from the claimed invention by not explicitly reciting with at least one bit value in the data word depending on the power control information and on the further data.

In an analogous art, Hogan teaches a method and apparatus for performing encryption and error coding correction that includes the usage of an exclusive-OR logic operation (Page 1 [0012-0013] and Page 2 [0027]), wherein once the addition of error correction bits are added to a code word containing power control information and further data; at least one bit value (error correction bit) in the data word is depending on the power control information and on the further data. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to implement the method of power control of Uesugi after modifying it to incorporate the error coding correction of Hogan. One of ordinary skill in the art would have been motivated to do this since it enables a simple error correction that reduces the need for retransmission of lost data. (Page 1 [0003 & 0006])

Regarding claim 38, the limitations of claim 38 are rejected as being the same reason set forth above in claim 26.

Art Unit: 2617

Regarding claim 39, the limitations of claim 38 are rejected as being the same reason set forth above in claim 26.

Regarding claim 40, the limitations of claim 40 are rejected as being the same reason set forth above in claim 28.

Regarding claim 41, the limitations of claim 41 are rejected as being the same reason set forth above in claim 29.

Regarding claim 42, the limitations of claim 42 are rejected as being the same reason set forth above in claim 31.

Regarding claim 43, the limitations of claim 43 are rejected as being the same reason set forth above in claim 32.

Regarding claim 45, the limitations of claim 45 are rejected as being the same reason set forth above in claim 34.

Regarding claim 46, the limitations of claim 46 are rejected as being the same reason set forth above in claim 35.

Regarding claim 47, Uesugi in view of Hogan teaches the radio system is a CDMA mobile radio system. (Uesugi Col. 1 lines 15-27)

Regarding claim 48, the limitations of claim 48 are rejected as being the same reason set forth above in claim 36.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 25-48 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2617

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

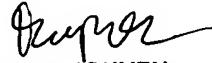
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Sams whose telephone number is (571)272-8099. The examiner can normally be reached on M-F 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MCS  
4/13/2007

  
DUC M. NGUYEN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600